

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Robert H. Blick, et al.

Title: ENHANCEMENT OF  
FABRICATION YIELDS OF  
NANOMECHANICAL DEVICES  
BY THIN FILM DEPOSITION

Appl. No.: 10/802,259

Filing Date: March 17, 2004

Art Unit: 2811

<p align="center"><b>CERTIFICATE OF MAILING</b></p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below.</p> <p align="center"><u>Harry C. Engstrom</u> (Printed Name)</p> <p align="center"><u><i>Harry C. Engstrom</i></u> (Signature)</p> <p align="center"><u>August 3, 2004</u> (Date of Deposit)</p>
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**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Mail Stop MISSING PARTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO-1449 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to Pre-OG Notice from Office of Patent Legal Administration dated July 25, 2003, *Information Disclosure Statements May Be Filed Without*

*Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003.*

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

#### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

#### **RELEVANCE OF EACH DOCUMENT**

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO-1449 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2350. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even

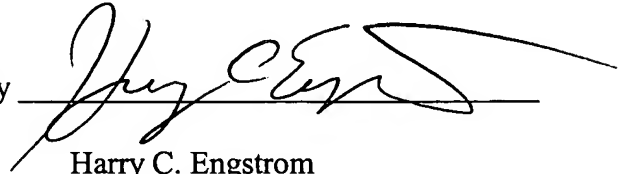
entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit  
Account No. 50-2350.

Respectfully submitted,

Dated: August 3, 2004

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By

A handwritten signature in black ink, appearing to read "Harry C. Engstrom", written over a horizontal line.

Harry C. Engstrom  
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Form PTO-1449 (MODIFIED)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 032026-0761	SERIAL NO. 10/802,259
<b>INFORMATION DISCLOSURE CITATION</b>  Submitted: August 3, 2004 (Use several sheets if necessary)		APPLICANT Robert H. Blick, et al.	
		FILING DATE 03/17/2004	GROUP ART UNIT 2811

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
		6,589,717	7/8/03	Ghandehari, et al.			

## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		M.L. Roukes, "Nanoelectromechanical Systems Face the Future," Physics World 14, No. 25, February 2001.
		D.V. Scheible, A. Erbe and R.H. Blick, "Tunable Coupled Nanomechanical Resonators for Single-Electron Transport," New J. Phys., 4, 2002, pp. 86.1-86.7.
		N.V. Lavrik and P.G. Datskos, "Femtogram Mass Detection Using Photothermally Actuated Nanomechanical Resonators," Appl. Phys. Lett., Vol. 82, No. 16, 21 April 2003, pp. 2697-2699.
		A. Erbe, C. Weiss, W. Zwerger and R.H. Blick, "Nanomechanical Resonator Shuttling Single Electrons at Radio Frequencies," Phys. Review Lett., Vol. 87, No. 9, 27 August 2001, pp. 096106-1 – 096106-4.
		X.M.H. Huang, C.A. Zorman, M. Mehregany and M.L. Roukes, "Nanodevice Motion at Microwave Frequencies," Nature (London), Vol. 421, 30 January 2003, p. 496.
		A.N. Cleland and M.L. Roukes, "Fabrication of High Frequency Nanometer Scale Mechanical Resonators from Bulk Si Crystals," Appl. Phys. Lett., Vol. 69, No. 18, 28 October 1996, pp. 2653-2655.
		B. Ilic, D. Czaplewski and H.G. Craighead, "Mechanical Resonant Immunospecific Biological Detector," Appl. Phys. Lett., Vol. 77, No. 3, 17 July 2000, pp. 450-452.

		M. Wendel, H. Lorenz and J.P. Kotthaus, "Sharpened Electron Beam Deposited Tips for High Resolution Atomic Force Microscope Lithography and Imaging," Appl. Phys. Lett., " Vol. 67, No. 25, 18 December 1995, pp. 3732-3734.
		C.T.-C. Nguyen, "Frequency-Selective MEMS for Miniaturized Low-Power Communication Devices," IEEE Trans. Microwave Theory Tech., Vol. 47, No. 8, August 1999, pp. 1486-1503.
EXAMINER		DATE CONSIDERED
<p>* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include any copy of this form with next communication to applicant.</p>		

